



# Forest Insect & Disease Management

Survey Report

S-20-75

July 1975

## SPRUCE BUDWORM AERIAL SURVEY NICOLET NATIONAL FOREST, WISCONSIN 1975

Bruce C. Anderson, Technician  
St. Paul Field Office

### INTRODUCTION

The spruce budworm, Choristoneura fumiferana (Clem.), continues to defoliate balsam fir and white spruce on the Nicolet National Forest. Erickson reported 600 gross acres defoliation in 1973<sup>1/</sup> and Fowler reported 27,500 gross acres defoliation in 1974<sup>2/</sup>. No tree mortality or top kill had been observed. The current status of spruce budworm defoliation was unknown.

### OBJECTIVE

To determine the location, acreage, and severity of spruce budworm defoliation on the Nicolet National Forest.

### METHOD

In July 1975 preplanned flight lines were flown in a Cessna 172 between 9:30 am and 2:00 pm at 1,500 feet above ground at 110 mi/h air speed. Personnel from the Forest and I sketch-mapped the boundaries of currently defoliated white spruce and balsam fir on  $\frac{1}{4}$ -inch-to-the-mile maps. The following codes were used to designate severity of defoliation and stand condition:

	<u>DEFOLIATION</u>	<u>STAND CONDITION</u>
L-	Light to moderate, 0-50% of crown showing reddish-brown discoloration.	<u>No tree mortality or top kill.</u>
H-	Heavy, 51-100% of crown showing reddish-brown discoloration.	<u>No tree mortality or top kill.</u>
S-	Severe, 51-100% of crown showing reddish-brown and grey discoloration.	<u>Tree mortality and top kill.</u>

<sup>1/</sup> Erickson, Glen. "Spruce Budworm Defoliation, 1973, Nicolet National Forest", NA S&PF, St. Paul Field Office Report S-9-73.

<sup>2/</sup> Fowler, R.F. "Spruce Budworm Defoliation, 1974, Nicolet National Forest", NA S&PF, St. Paul Field Office Report S-6-74.

Ground checks were conducted to verify location and severity of defoliated areas.

## RESULTS

Light scattered patches of defoliation are being observed for the first year in the southern half of the forest. Light to heavy defoliation continues in the northern half of the forest. No top kill or tree mortality was observed. The gross acres defoliated, which include some mixed hardwood types, are listed below by class:

<u>Defoliation</u>	<u>Acres</u>
Light to Moderate	19,000
Heavy	24,600
Severe	0
Total	43,600

## NICOLET NATIONAL FOREST, WISCONSIN

